

**Notice of Allowability****Application No.**

10/532,538

**Examiner**

Anita K. Alanko

**Applicant(s)**

SAITO ET AL.

**Art Unit**

1792

**- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 6/23/09 - RCE.
2. ☒ The allowed claim(s) is/are 1-12.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_.
- Identifying Indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date 20090805.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_.

### EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Carl Reed on August 5, 2009.

The application has been amended as follows:

Claim 1 (Currently Amended) A method for manufacturing a glass substrate for an information recording medium, the manufacturing method comprising:

forming a surface layer on a surface of a disk-shaped glass plate having a predetermined composition and a predetermined chemical resistance, with the surface layer having a composition differing from the predetermined composition and a chemical resistance that is lower than the predetermined chemical resistance;

scrubbing the surface in a circumferential direction with an abrasive and a scrub member to form a texture including a plurality of projections each extending in a circumferential direction of the surface, the scrubbing forming the projections extending over the surface layer and a lower layer adjacent to the surface layer by removing the surface layer and the lower layer; and thereafter

selectively removing an upper portion of the projections included in the surface layer with an etching liquid, wherein a ratio of a maximum peak height,  $R_p$ , to an arithmetic mean roughness,  $R_a$ , of the surface layer is 8 or less.

Claim 10 (Currently Amended) A method for manufacturing a glass substrate for an information recording medium, the manufacturing method comprising:

preparing a disk-shaped glass plate having a predetermined composition and a predetermined chemical resistance;

polishing the glass plate to form a smooth surface;

chemically processing the smooth surface to form a surface layer having a composition differing from the predetermined composition, a chemical resistance that is lower than the predetermined chemical resistance, and a first thickness;

forming a texture in a circumferential direction, the texture including a plurality of projections on the surface, each of the projections extending in a circumferential direction, wherein the projections extending over the surface layer and a lower layer adjacent to the surface layer are formed by removing the surface layer and the lower layer; and thereafter

selectively removing only part of the plurality of projections included in the surface layer so that the plurality of projections have flat upper surfaces that are flush with each other, wherein

a ratio of a maximum peak height,  $R_p$ , to an arithmetic mean roughness,  $R_a$ , of the surface layer is 8 or less.

Cancel claims 13-17.

Basis for the amendment of the ratio  $R_p/R_a$  that is 8 or less is found in the examples on pages 18-20 of the specification. The instant invention has working examples of the ratio of 8 and below that avoids glide errors, whereas comparative examples with ratios of 11 and higher have different surface properties and glide errors.

The following is an examiner's statement of reasons for allowance: the prior art does not disclose or suggest a method for manufacturing a glass substrate for an information recording medium, the manufacturing method comprising:

forming a surface layer on a surface of a disk-shaped glass plate having a predetermined composition and a predetermined chemical resistance, with the surface layer having a composition differing from the predetermined composition and a chemical resistance that is lower than the predetermined chemical resistance;

scrubbing the surface in a circumferential direction with an abrasive and a scrub member to form a texture including a plurality of projections each extending in a circumferential direction of the surface, the scrubbing forming the projections extending over the surface layer and a lower

layer adjacent to the surface layer by removing the surface layer and the lower layer; and thereafter

selectively removing an upper portion of the projections included in the surface layer with an etching liquid, wherein a ratio of a maximum peak height,  $R_p$ , to an arithmetic mean roughness,  $R_a$ , of the surface layer is 8 or less, as in the context of claim 1.

The closest prior art, Ikeda et al modified by Fujimura, discloses a similar process, but with  $R_p/R_a$  ratios of 10 or higher (Table 1, in both Ikeda and Fujimura). There is no suggestion or motivation as to how to lower the ratio in the method of Ikeda to the range of 8 or less, as in the context of claim 1, which provides the benefit of avoiding glide errors.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anita K. Alanko whose telephone number is 571-272-1458. The examiner can normally be reached on Mon-Fri until 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nadine Norton can be reached on 571-272-1465. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Anita K Alanko/  
Primary Examiner, Art Unit 1792